

ABSTRACT

Patients having several neurological diseases have been shown to have elevated levels of axonally-derived proteins (i.e. tau and neurofilament proteins) in cerebrospinal fluid (CSF) and in brain tissue. Three monoclonal antibodies (MAbs) recognizing CSF tau proteins were developed. The Mabs were found to label a ladder of 30 kD to 50 kD tau proteins in CSF from patients with disease states producing axonal damage such as head trauma or CNS tumor but not in CSF from controls. High levels of tau protein in CSF were shown to be diagnostic of axonal degeneration in head trauma. An ELISA assay was developed with these MAbs to aid in the diagnosis of patients with axonal damage.

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